EXHIBIT D

Representative Claim Chart
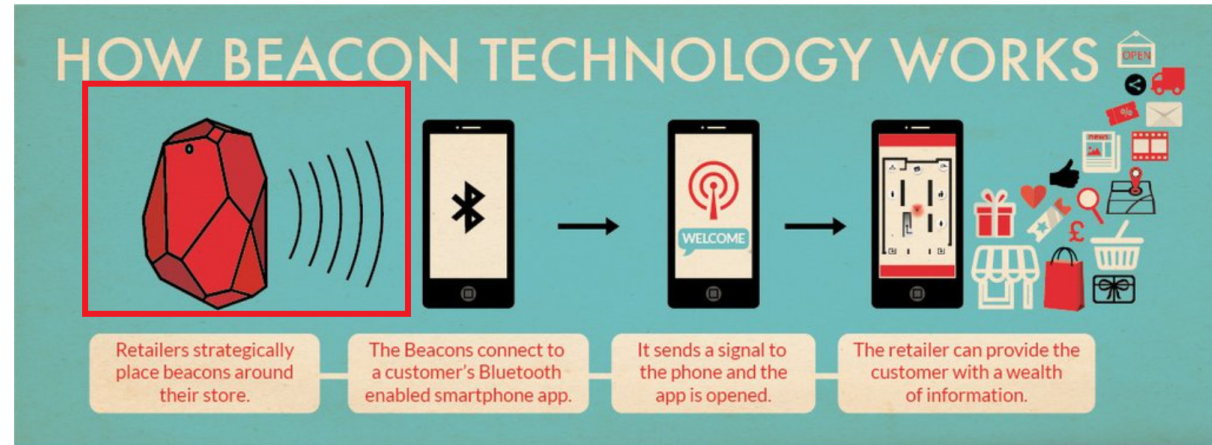
USPN 10,194,292, Claim 28: Target Applicability

Claim 28	Applicability
A system, comprising: a building including a plurality of facilities therein, the building including: a first broadcast short-range communications unit having a first fixed location and configured to:	Target owns or controls *a system, comprising: a building* (e.g., a store, etc.) *including a plurality of facilities* (e.g., departments, portions of the store, etc.) *therein, the building including: a first broadcast short-range communications unit* (e.g., a first beacon broadcast unit, etc.) *having a first fixed location* (e.g., a first location in a first department/portion of the store, etc.) *and configured to:* See, for example, the excerpt(s) below (emphasis added): "Beacon technology is already used by some of North America's top retailers, including Macy's, **Target**, Urban Outfitters, and CVS." https://www.shopify.com/retail/the-ultimate-guide-to-using-beacon-technology-for-retail-stores

generate one or more first broadcast messages including at least one first value, broadcast, via a first wireless communications protocol, the one or more first broadcast messages including the at least one first value, for intended receipt by a	Target owns or controls a first broadcast short-range communications unit (e.g., a first beacon broadcast unit, etc.) that is configured to *generate one or more first broadcast messages* (e.g., first advertisement packets, etc.) *including at least one first value* (e.g., a first universally unique identifier that uniquely identifies the first location so that unique corresponding content can be retrieved, etc.). The first broadcast short-range communications unit is further configured to *broadcast, via a first wireless communications protocol* (e.g., Bluetooth protocol, etc.)*, the one or more first broadcast messages including the at least one first value, for intended receipt by a plurality of mobile devices in a communication range of the first broadcast short-range communications unit* (e.g., the first beacon broadcast unit, etc.)*, and*

plurality of mobile devices in a communication range of the first broadcast short-range communications unit, and	**Note**: See, for example, the evidence (above, where applicable) and below: https://www.shopify.com/retail/the-ultimate-guide-to-using-beacon-technology-for-retail-stores

"Now, Target is further upping its app game with **beacon and Bluetooth technology** that shows your location on the app's map as you move throughout the store."
https://corporate.target.com/article/2017/09/target-app-mike-mcnamara

"Using **Bluetooth** chips embedded in **Acuity LED ceiling lights**, Target's **network of beacons** can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara."

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https://blog.bluetooth.com/bluetooth-beacons-are-on-target-with-a-major-retailer

"**Acuity** Brands is **Bluetooth**® beacons which **allow a mobile device to locate its own position based on which beacon it detects**."

https://acuitysupport.zendesk.com/hc/en-us/articles/115007606147-Indoor-Positioning-How-does-Acuity-s-IPS-work-

Note: As set forth above, a mobile device identifies its position based on which beacon it detects. As set forth below, Bluetooth beacons uniquely identify themselves using a universally unique identifier. Without such unique identification, the mobile device would not be able to distinguish between the beacons (and identify its position based on them).

"**Bluetooth beacons are hardware transmitters - a class of Bluetooth low energy (LE) devices that broadcast their identifier to nearby portable electronic devices**. The technology enables smartphones, tablets and other devices to perform actions when in close proximity to a beacon.

Bluetooth beacons use Bluetooth low energy proximity sensing to transmit a **universally unique identifier** picked up by a compatible app or operating system. The identifier and several bytes sent with it can be used to determine the device's physical location, track customers, or trigger a location-based action on the device such as a check-in on social media or a push notification."
https://en.wikipedia.org/wiki/Bluetooth_low_energy_beacon
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re-broadcast, via the first wireless communications protocol, the one or more first broadcast messages including the at least one first value, for intended receipt by the plurality of mobile devices in the communication range of the first broadcast short-range communications unit, and
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Target owns or controls a first broadcast short-range communications unit (e.g., a first beacon broadcast unit, etc.) that is configured to broadcast and *re-broadcast, via the first wireless communications protocol* (e.g., Bluetooth protocol, etc.)*, the one or more first broadcast messages* (e.g., the first advertisement packets, etc.) *including the at least one first value* (e.g., the first universally unique identifier that uniquely identifies the first location so that unique corresponding content can be retrieved, etc.)*, for intended receipt by the plurality of mobile devices in the communication range of the first broadcast short-range communications unit* (e.g., the first beacon broadcast unit, etc.)*, and*
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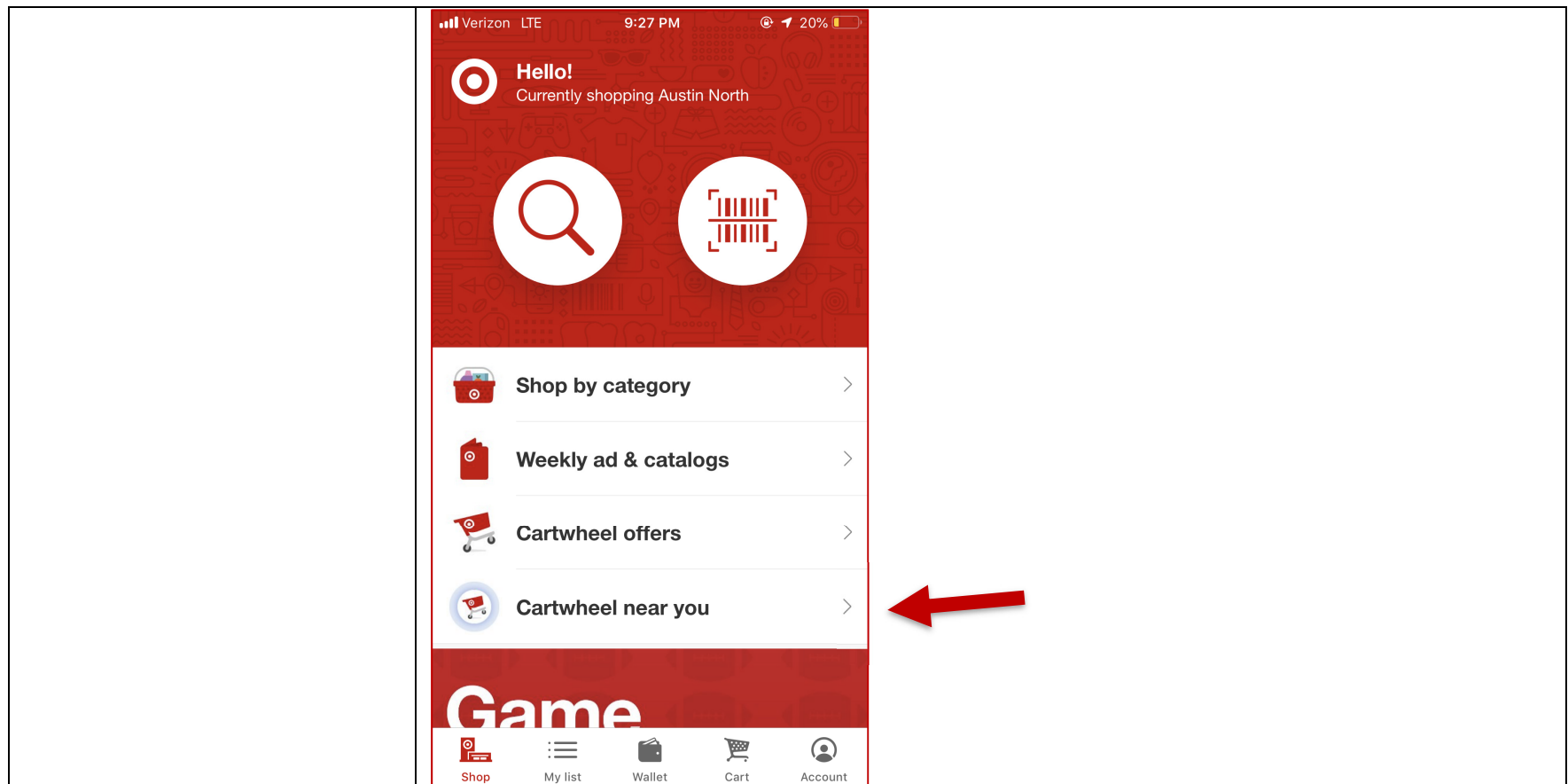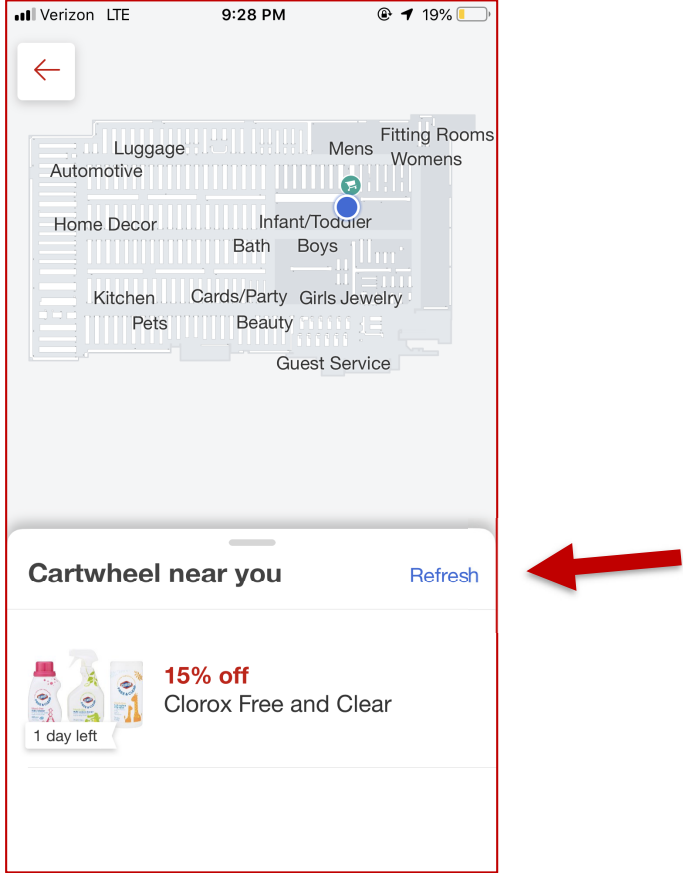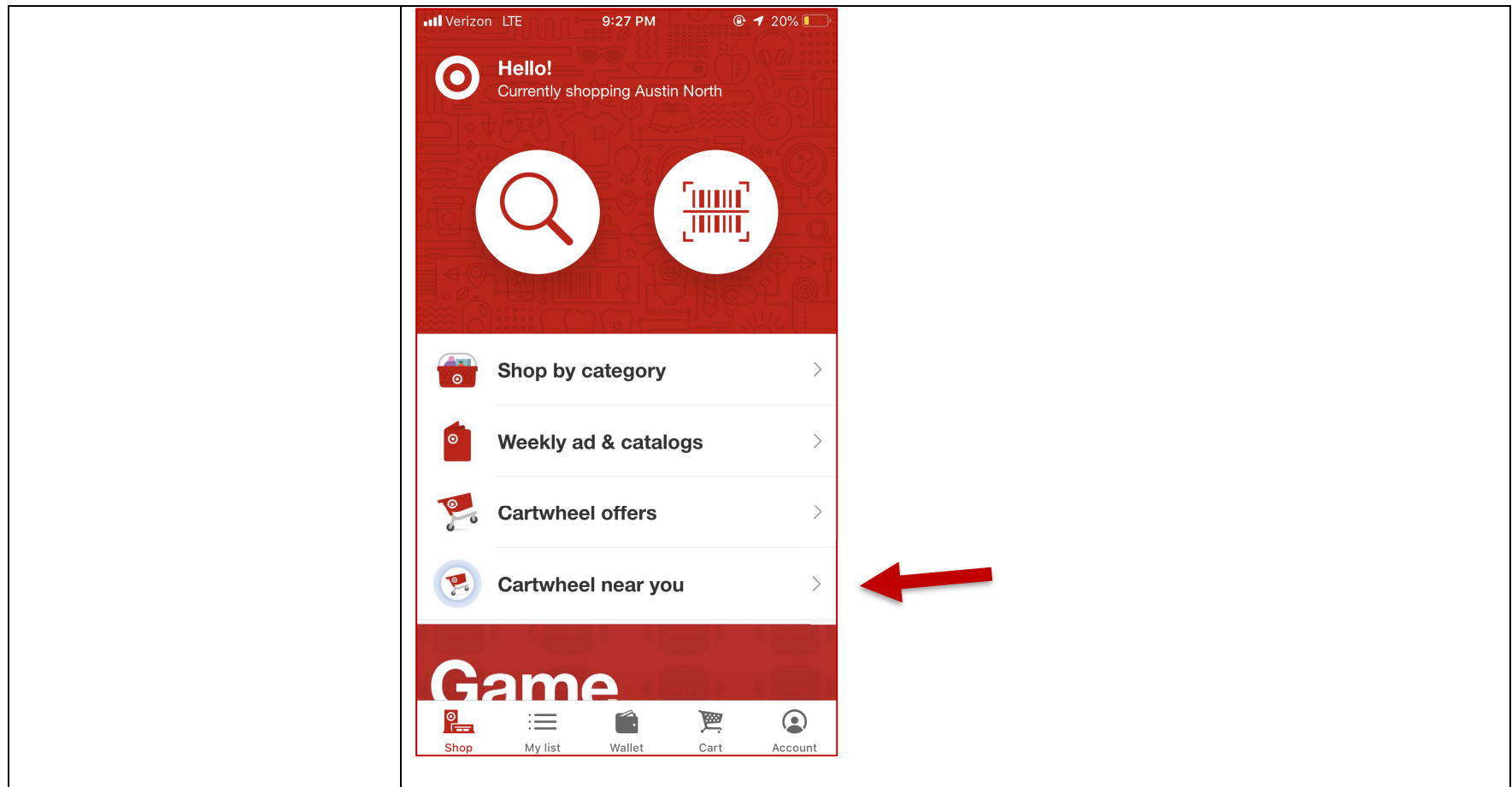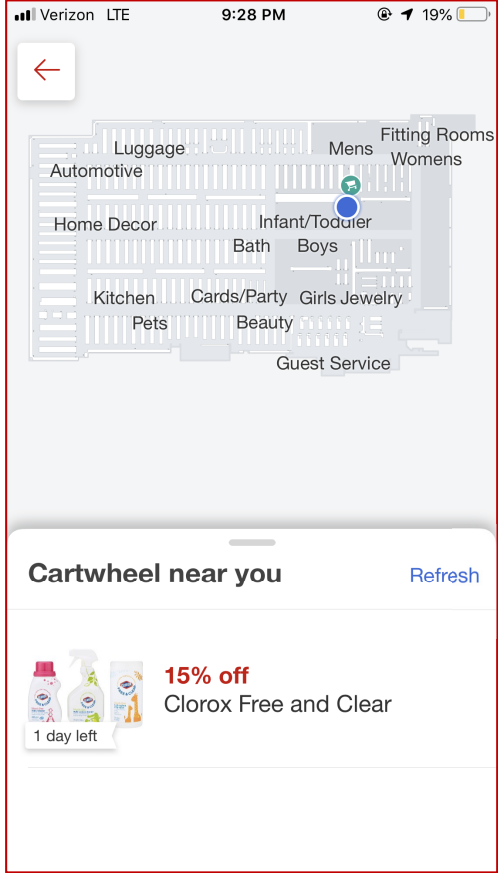|	
	"Now, Target is further upping its app game with **beacon and Bluetooth technology** that shows your location on the app's map as you move throughout the store." https://corporate.target.com/article/2017/09/target-app-mike-mcnamara "Using **Bluetooth** chips embedded in **Acuity LED ceiling lights**, Target's **network of beacons** can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara." https://blog.bluetooth.com/bluetooth-beacons-are-on-target-with-a-major-retailer "**Acuity** Brands is **Bluetooth**® beacons which **allow a mobile device to locate its own position based on which beacon it detects**." https://acuitysupport.zendesk.com/hc/en-us/articles/115007606147-Indoor-Positioning-How-does-Acuity-s-IPS-work- Note: Based on information and belief, the advertisement packets are broadcast and re-broadcast so that mobile devices that are not in range of an initial broadcast can detect the advertisement packets when, at a later time the mobile devices are in range. **Note**: See also, for example, the evidence above.
a second broadcast short-range communications unit having a second fixed location and configured to: generate one or more second broadcast messages including at least one second value, broadcast, via the first wireless communications protocol, the one or more second broadcast	Target owns or controls *a second broadcast short-range communications unit* (e.g., a second beacon broadcast unit, etc.) *having a second fixed location* (e.g., a second location in a second department/portion of the store, etc.) *and configured to: generate one or more second broadcast messages* (e.g., second advertisement packets, etc.) *including at least one second value* (e.g., a second universally unique identifier that uniquely identifies the second location so that unique corresponding content can be retrieved, etc.). The at least one second broadcast short-range communications unit is further configured to *broadcast, via the first wireless communications protocol* (e.g., Bluetooth protocol, etc.)*, the one or more second broadcast messages including the at least one second value, for intended receipt by the plurality of mobile devices in a communication range of the second broadcast short-range communications unit, and* **Note**: See, for example, the evidence above.

messages including the at least one second value, for intended receipt by the plurality of mobile devices in a communication range of the second broadcast short-range communications unit, and	"Now, Target is further upping its app game with **beacon and Bluetooth technology** that shows your location on the app's map as you move throughout the store." https://corporate.target.com/article/2017/09/target-app-mike-mcnamara "Using **Bluetooth** chips embedded in **Acuity LED ceiling lights**, Target's **network of beacons** can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara."
re-broadcast, via the first wireless communications protocol, the one or more second broadcast messages including the at least one second value, for intended receipt by the plurality of mobile devices in the communication range of the second broadcast short-range communications unit;	Target owns or controls a second broadcast short-range communications unit (e.g., a second beacon broadcast unit, etc.) that is configured to *re-broadcast, via the first wireless communications protocol* (e.g., Bluetooth protocol, etc.)*, the one or more second broadcast messages* (e.g., the second advertisement packets, etc.) *including the at least one second value* (e.g., the second universally unique identifier that uniquely identifies the second location so that unique corresponding content can be retrieved, etc.)*, for intended receipt by the plurality of mobile devices in the communication range of the second broadcast short-range communications unit* (e.g., the second beacon broadcast unit, etc.)*;* "Now, Target is further upping its app game with **beacon and Bluetooth technology** that shows your location on the app's map as you move throughout the store." https://corporate.target.com/article/2017/09/target-app-mike-mcnamara "Using **Bluetooth** chips embedded in **Acuity LED ceiling lights**, Target's **network of beacons** can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara." https://blog.bluetooth.com/bluetooth-beacons-are-on-target-with-a-major-retailer "**Acuity** Brands is **Bluetooth**® beacons which **allow a mobile device to locate its own position based on which beacon it detects**."

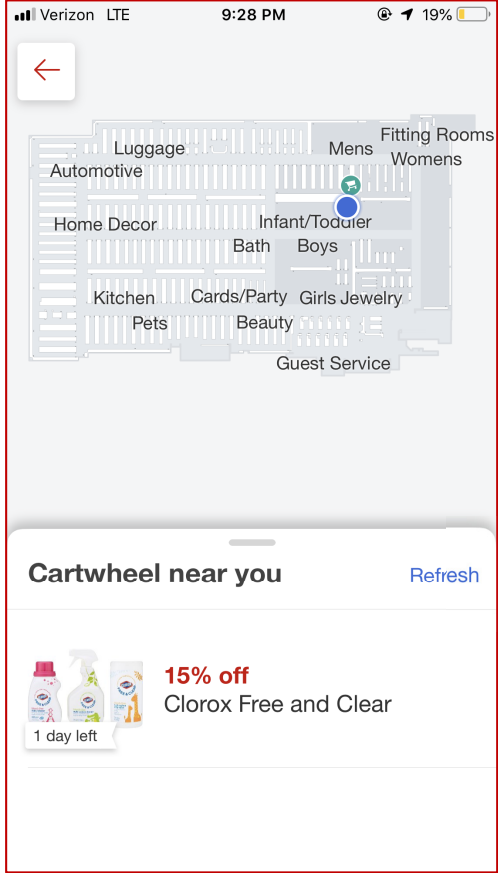|	https://acuitysupport.zendesk.com/hc/en-us/articles/115007606147-Indoor-Positioning-How-does-Acuity-s-IPS-work- Note: Based on information and belief, the advertisement packets are broadcast and re-broadcast so that the mobile devices that are not in range of an initial broadcast can detect the advertisement packets at a later time when the mobile devices are in range. **Note**: See also, for example, the evidence above.
code configured to be executed by at least one of the plurality of mobile devices, the code, when executed, configured to: cause display, via a display of the at least one mobile device, of an option for causing first visual information and second visual information to be output via the at least one mobile device,	Target owns or controls *code* (e.g., a Target Mobile application, etc.) *configured to be executed by at least one of the plurality of mobile devices, the code, when executed, configured to: cause display, via a display of the at least one mobile device, of an option* (e.g., a "Cartwheel near you" option or "refresh" option, etc.) *for causing first visual information* (e.g., images of location-specific cartwheel "deals", etc.) *and second visual information* (e.g., additional images of location-specific cartwheel "deals", etc.) *to be output via the at least one mobile device,* **Note**: See, for example, the evidence (above, where applicable) and below:

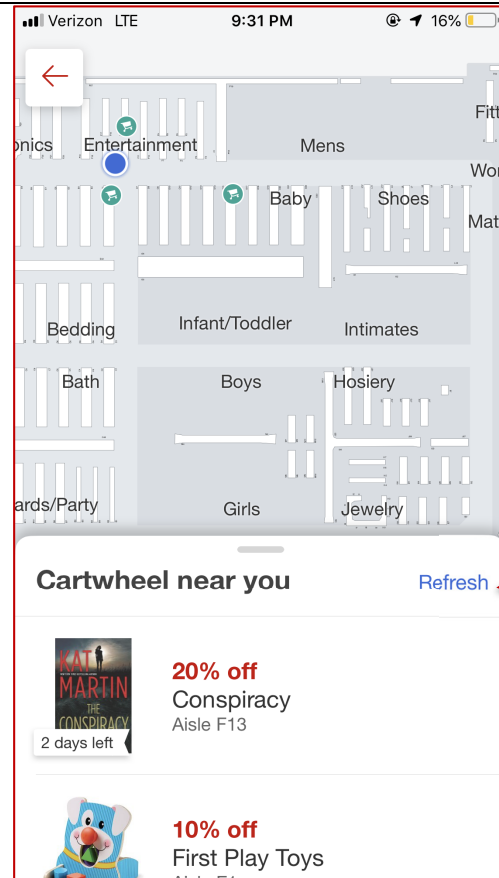|	
receive an indication of a user input for the option displayed via the display of the at least one mobile device,	Target owns or controls *code* (e.g., a Target application, etc.) *configured to be executed by at least one of the plurality of mobile devices, the code, when executed, configured to: receive an indication of a user input* (e.g. touch on the "Cartwheel near you" option or the "refresh" option, etc.) *for the option displayed via the display of the at least one mobile device,* **Note**: See, for example, the evidence (above, where applicable) and below:

| receive an indication of a receipt, from the first broadcast short-range communications unit and via the first wireless communications protocol, of the one or more first broadcast messages including the at least one first value, | Target owns or controls *code* (e.g., a Target application, etc.) *configured to be executed by at least one of the plurality of mobile devices, the code, when executed, configured to: receive an indication of a receipt, from the first broadcast short-range communications unit* (e.g., the beacon broadcast unit, etc.) *and via the first wireless communications protocol* (e.g., Bluetooth protocol, etc.)*, of the one or more first broadcast messages* (e.g., the first advertisement packets, etc.) *including the at least one first value* (e.g., the first universally unique identifier that uniquely identifies the first location so that unique corresponding content can be retrieved, etc.),

Note: See, for example, the evidence (above, where applicable) and below: |

	"Using Bluetooth chips embedded in Acuity LED ceiling lights, Target's **network of beacons** can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara." https://blog.bluetooth.com/bluetooth-beacons-are-on-target-with-a-major-retailer **Note**: As evidenced below by the "refresh" option, the "cartwheel near you" deals are "pulled" from a server as desired by the user. In response to selecting such "option", this is accomplished by sending, to the server, at least one message for use in automatically retrieving the particular location-relevant information.

receive an indication of a receipt, from the second broadcast short-range communications unit and via the first wireless communications protocol, of the one or more second broadcast messages including the at least one second value, and	Target owns or controls *code* (e.g., a Target application, etc.) *configured to be executed by at least one of the plurality of mobile devices, the code, when executed, configured to: receive an indication of a receipt, from the second broadcast short-range communications unit* (e.g., the second beacon broadcast unit, etc.) *and via the first wireless communications protocol* (e.g., Bluetooth protocol, etc.)*, of the one or more second broadcast messages* (e.g., the second advertisement packets, etc.) *including the at least one second value* (e.g., the second universally unique identifier that uniquely identifies the second location so that unique corresponding content can be retrieved, etc.)*, and* **Note**: See, for example, the evidence above.

cause to be sent, from the at least one mobile device and via a second wireless communications protocol and an Internet Protocol over the Internet at least in part, at least one message, where the first wireless communications protocol and the second wireless communications protocol are different and a first range of the first broadcast short-range communications unit and the second broadcast short-range communications unit when using the first wireless communications protocol is shorter than a second range of the at least one mobile device when using the second wireless communications protocol, and further where the at least one message does not pass through the first broadcast short-range communications unit nor the second broadcast short-range communications unit when sent from the at least one mobile device and via the second wireless communications protocol and the Internet Protocol over the Internet at least in part; and	Target owns or controls *code* (e.g., a Target application, etc.) *configured to be executed by at least one of the plurality of mobile devices, the code, when executed, configured to: cause to be sent, from the at least one mobile device and via a second wireless communications protocol* (e.g. cellular wireless protocol such as 3G/4G/5G protocols, or Wi-Fi protocol such as 802.11n/ac protocols, etc.) *and an Internet Protocol* (e.g. TCP/IP protocols via the cellular and/or WiFi connection, etc.) *over the Internet at least in part, at least one message* (e.g., IP packet(s), etc.)*, where the first wireless communications protocol* (e.g., Bluetooth protocol, etc.) *and the second wireless communications protocol are different and a first range of the first broadcast short-range communications unit* (e.g., the first beacon broadcast unit, etc.) *and the second broadcast short-range communications unit* (e.g., the second beacon broadcast unit, etc.) *when using the first wireless communications protocol is shorter than a second range of the at least one mobile device when using the second wireless communications protocol, and further where the at least one message does not pass through the first broadcast short-range communications unit nor the second broadcast short-range communications unit when sent from the at least one mobile device and via the second wireless communications protocol and the Internet Protocol over the Internet at least in part; and* **Note**: See, for example, the evidence (above, where applicable) and below: "Using Bluetooth chips embedded in Acuity LED ceiling lights, Target's network of beacons can help you find your way around any Target location-, all via the Target app on your mobile device. "We're rolling out beacon Bluetooth technology that shows your location on the app's map as you move throughout the store," said McNamara." https://blog.bluetooth.com/bluetooth-beacons-are-on-target-with-a-major-retailer **Note**: As evidenced below by the "refresh" option, the "cartwheel near you" deals are "pulled" from a server as desired by the user. In response to selecting such "option", this is accomplished by sending, to the server, at least one message for use in automatically retrieving the particular location-relevant information.

"The major components of a location based service are a mobile network, a content provider to give geo-specific information, a software application, a positioning component, and a mobile device. These <u>location based services are dependent on WiFi and Bluetooth</u> as GPS and ultrasonic/infrared don't work properly indoors."

https://fossbytes.com/wifi-beacons-better-location-based-services-lbs/ (emphasis added)
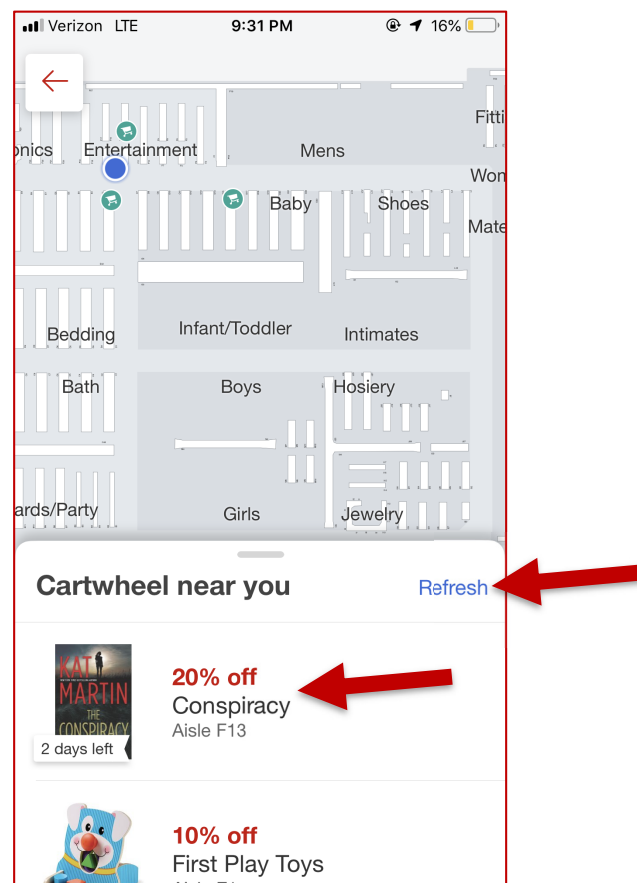
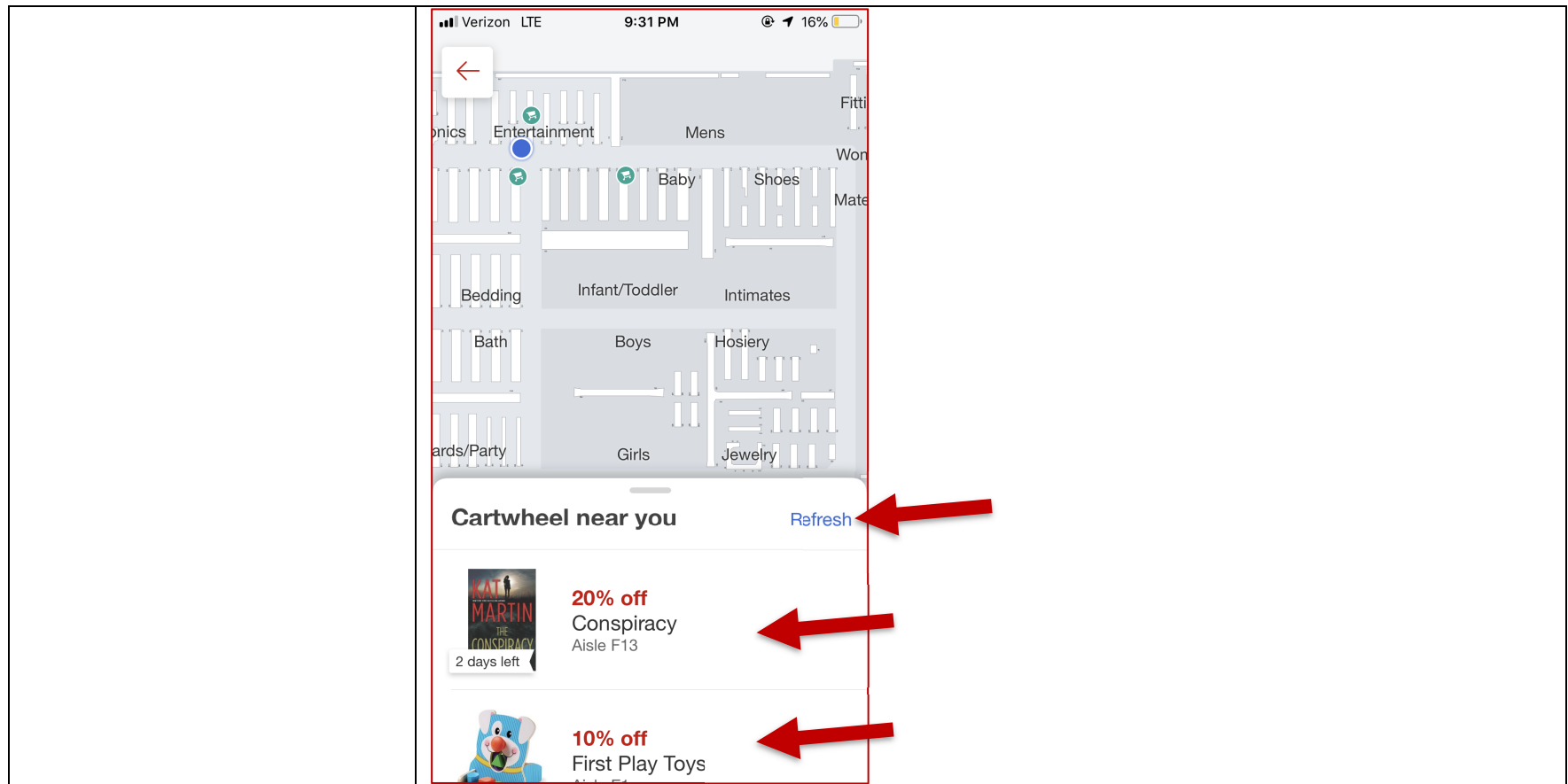| at least one server configured to:	Target owns or controls *at least one server configured to: receive, from the at least one mobile device and via the Internet protocol* (e.g. TCP/IP protocols via the cellular and/or WiFi connection, etc.) *over the Internet at least in part, the at least one message* (e.g., the IP packet(s), etc.),

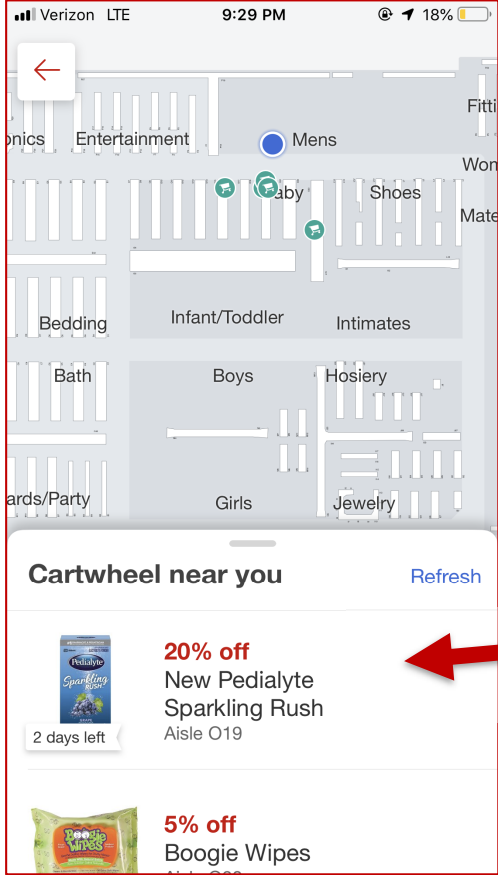| receive, from the at least one mobile device and via the Internet protocol over the Internet at least in part, the at least one message, | **Note**: See, for example, the evidence (above, where applicable) and below:

Note: As evidenced below by the "refresh" option, the "cartwheel near you" deals are "pulled" from a server as desired by the user. In response to selecting such "option", this is accomplished by automatically sending, to the server, at least one message for use in automatically retrieving the particular location-relevant information. After being received at the server, such message prompts the server to automatically retrieve the relevant cartwheel "deal," which is sent back to the mobile device for being automatically displayed, as evidenced below.

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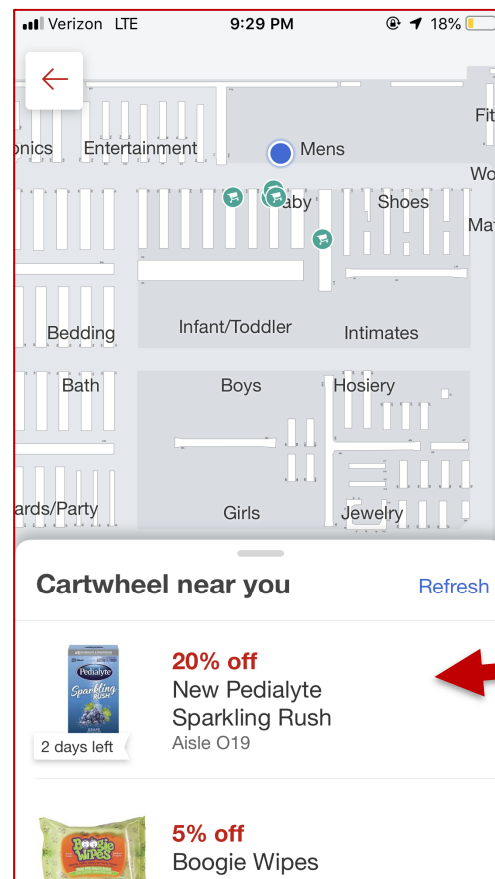|	
after the receipt, from the at least one mobile device and via the Internet protocol over the Internet at least in part, of the at least one message: retrieve at least one of first location-relevant information or second location-relevant information, and	Target owns or controls *at least one server that is configured to, after the receipt, from the at least one mobile device and via the Internet protocol* (e.g. TCP/IP protocols via the cellular and/or WiFi connection, etc.) *over the Internet at least in part, of the at least one message* (e.g., the IP packet(s), etc.)*: retrieve at least one of first location-relevant information* (e.g. first information including, among other things, images of location-specific cartwheel deals "near you" such as a "Conspiracy book" image and "First Play Toys" image, etc.) *or second location-relevant information* (e.g. second information including, among other things, images of location-specific cartwheel deals "near you" such as a "New Pedialyte Sparkling Rush" image, a "Boogie Wipes" image, etc.)*, and* **Note**: See, for example, the evidence (above, where applicable) and below: **Note**: As evidenced below by the "refresh" option, the "cartwheel near you" deals are "pulled" from a server as desired by the user. In response to selecting such "option", this is accomplished by automatically sending, to the server, at least one message for use in automatically retrieving the particular location-relevant information. After being received at the server, such message prompts the server to automatically retrieve the relevant cartwheel "deal," which is sent back to the mobile device for being automatically displayed, as evidenced below.

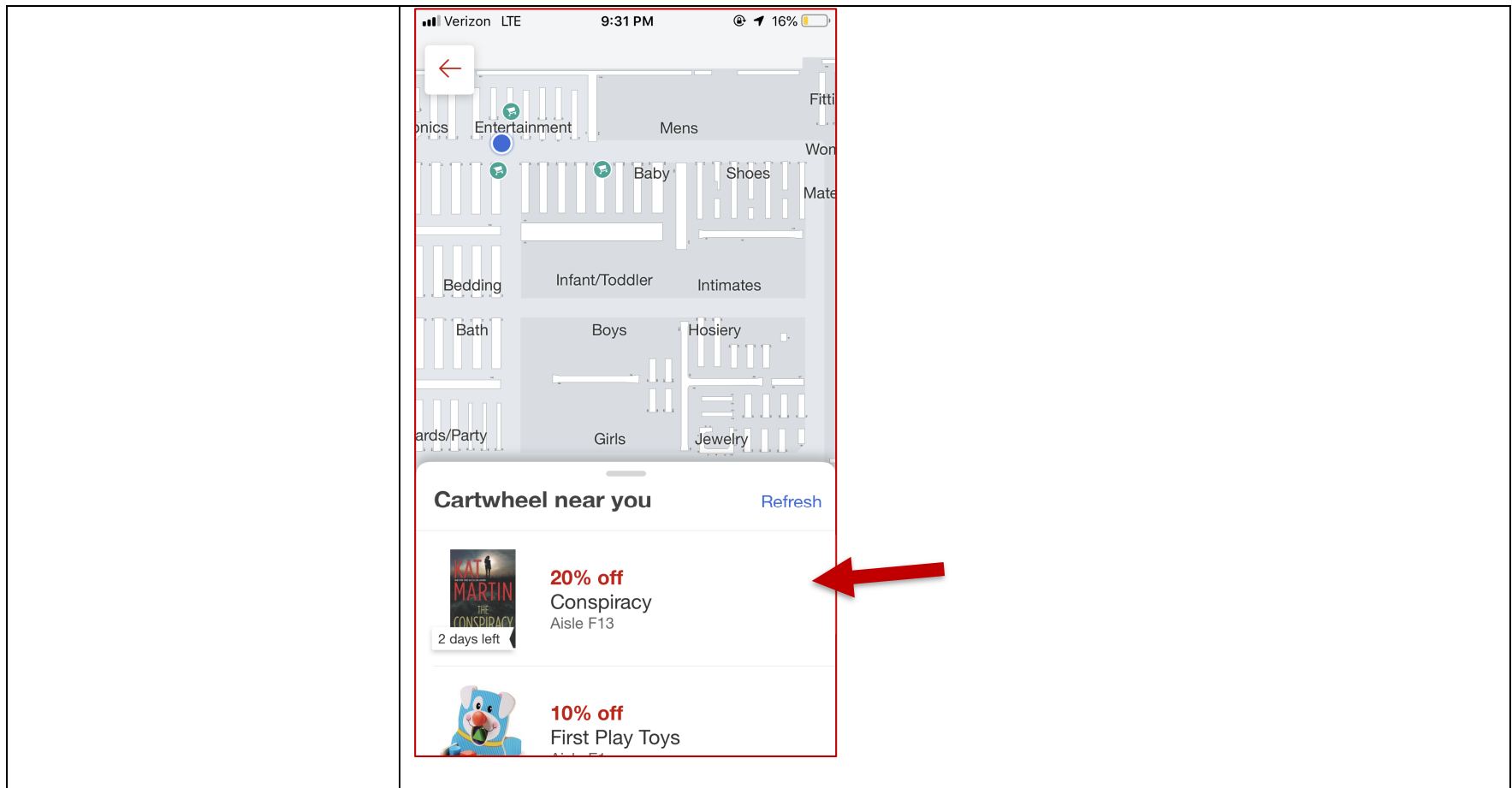| cause to be sent, from the at least one server to the at least one mobile device and via the Internet protocol over the Internet at least in part, the first location-relevant information;	Target owns or controls *at least one server that is configured to cause to be sent, from the at least one server to the at least one mobile device and via the Internet protocol* (e.g. TCP/IP protocols via the cellular and/or WiFi connection, etc.) *over the Internet at least in part the first location-relevant information* (e.g. first information including, among other things, images of location-specific cartwheel deals "near you" such as a "Conspiracy book" image and "First Play Toys" image, etc.) *and the second location-relevant information* (e.g. second information including, among other things, images of location-specific cartwheel deals "near you" such as a "New Pedialyte Sparkling Rush" image, a "Boogie Wipes" image, etc.)*;*

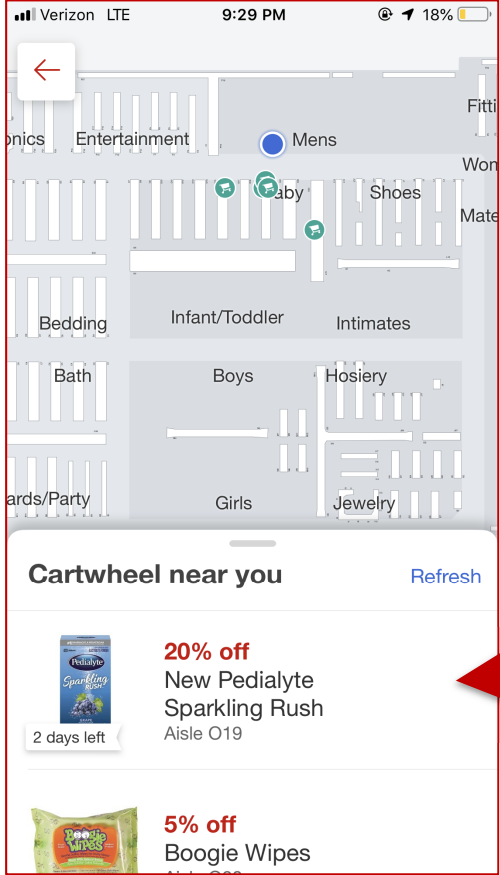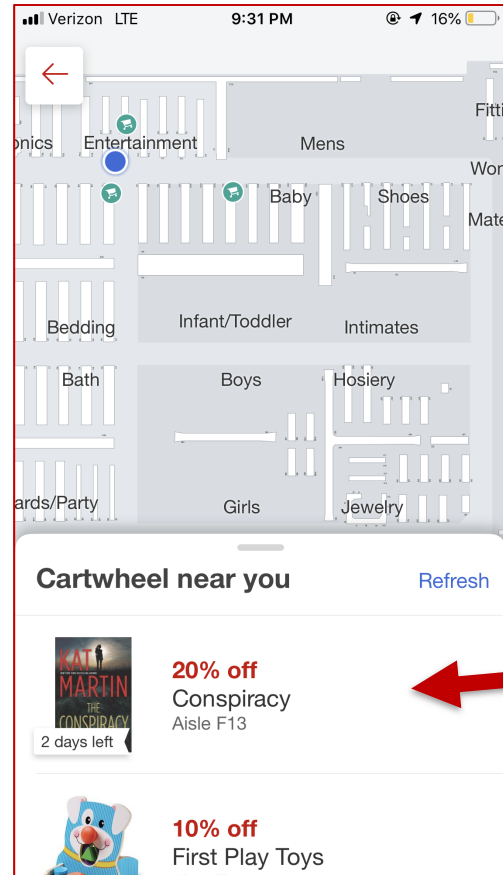| cause to be sent, from the at least one server to the at least one mobile device and via the Internet protocol over the Internet at least in part, the second location-relevant information;	**Note**: See, for example, the evidence (above, where applicable) and below: **Note**: As evidenced below by the "refresh" option, the "cartwheel near you" deals are "pulled" from the server as desired by the user. In response to selecting such "option", this is accomplished by automatically sending, to a server, at least one message for use in automatically retrieving the particular location-relevant information. After being received at the server, such message prompts the server to automatically retrieve the relevant cartwheel "deal," which is automatically sent back to the mobile device for being automatically displayed, as evidenced below.

said code, when executed, further configured to: receive, from the at least one server and via the second wireless communications protocol and the Internet Protocol over the Internet at least in part, the first location-relevant information, receive, from the at least one server and via the second wireless communications protocol and the Internet Protocol over the Internet at least in part, the second location-relevant information,	Target owns or controls *code* (e.g., Target application, etc.) *that, when executed, is further configured to: receive, from the at least one server and via the second wireless communications protocol* (e.g. cellular wireless protocol such as 3G/4G/5G protocols, or Wi-Fi protocol such as 802.11n/ac protocols, etc.) *and the Internet Protocol* (e.g. TCP/IP protocols via the cellular and/or WiFi connection, etc.) *over the Internet at least in part, the first location-relevant information* (e.g. first information including, among other things, images of location-specific cartwheel deals "near you" such as a "Conspiracy book" image and "First Play Toys" image, etc.) *and the second location-relevant information* (e.g. second information including, among other things, images of location-specific cartwheel deals "near you" such as a "New Pedialyte Sparkling Rush" image, a "Boogie Wipes" image, etc.). **Note**: See, for example, the evidence (above, where applicable) and below:

| after the receipt, from the at least one server and via the second wireless communications protocol, of the first location-relevant information: cause to be output, via the at least one mobile device, the first visual information based | Target owns or controls *code* (e.g., Target application, etc.) *that, when executed, is further configured to, after the receipt, from the at least one server and via the second wireless communications protocol* (e.g. cellular wireless protocol such as 3G/4G/5G protocols, or Wi-Fi protocol such as 802.11n/ac protocols, etc.)*, of the first location-relevant information* (e.g. first information including, among other things, images of location-specific cartwheel deals "near you" such as a "Conspiracy book" image and "First Play Toys" image, etc.)*: cause to be output, via the at least one mobile device, the first visual information* (e.g., the images of the first location-specific cartwheel "deals", etc.) *based on the first location-relevant information, and* |

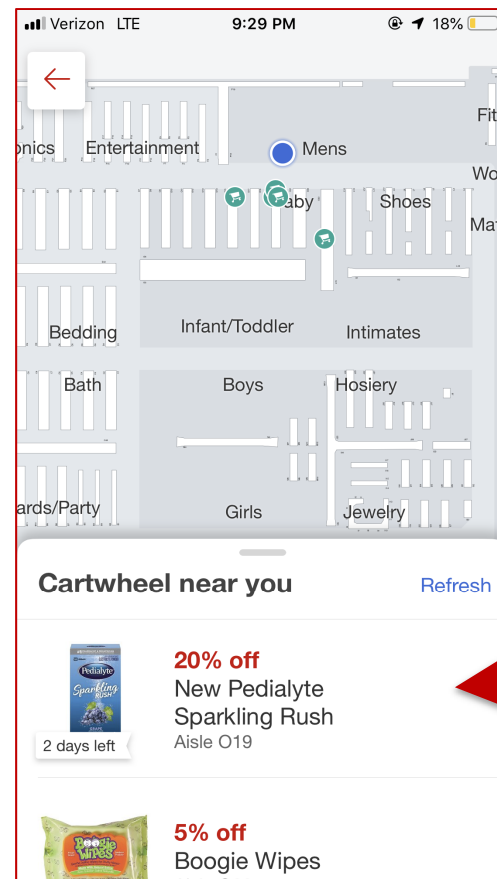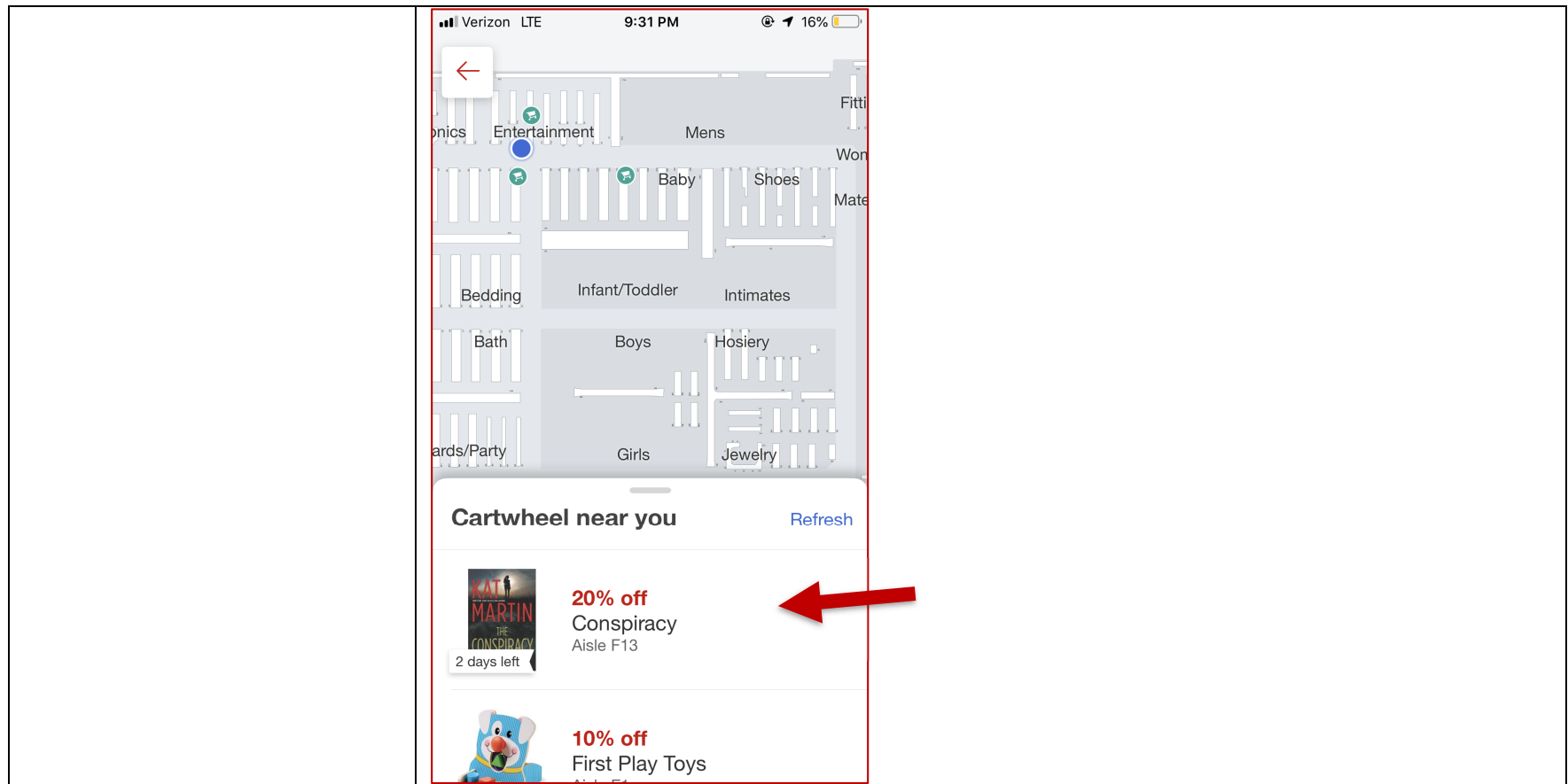|	
on the first location-relevant information, and	**Note**: See, for example, the evidence (above, where applicable) and below:
after the receipt, from the at least one server and via the second wireless communications protocol, of the second location-relevant information; after the first visual information is caused to be output	Target owns or controls *code* (e.g., Target application, etc.) *that, when executed, is further configured to, after the receipt, from the at least one server and via the second wireless communications protocol* (e.g. cellular wireless protocol such as 3G/4G/5G protocols, or Wi-Fi protocol such as 802.11n/ac protocols, etc.)*, of the second location-relevant information* (e.g. second information including, among other things, images of location-specific cartwheel deals "near you" such as a "New Pedialyte Sparkling Rush" image, a "Boogie Wipes" image, etc.)*; after the first visual information* (e.g., the images of the first location-specific

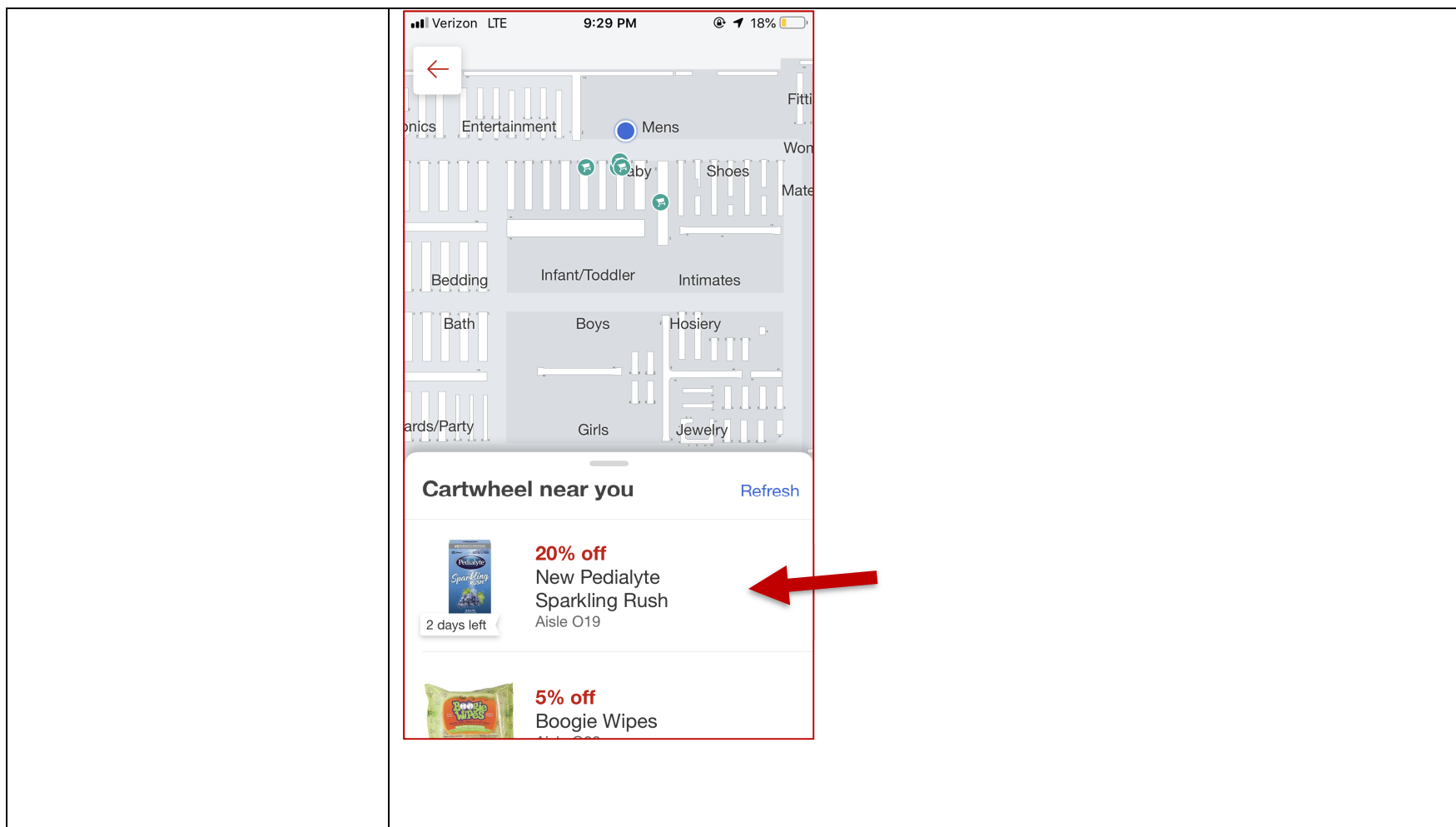| based on the first location-relevant information; and after the at least one mobile device is moved in the building: cause to be output, via the at least one mobile device, the second visual information based on the second location-relevant information; | cartwheel "deals", etc.) *is caused to be output based on the first location-relevant information* (e.g. first information including, among other things, images of location-specific cartwheel deals "near you" such as a "Conspiracy book" image and "First Play Toys" image, etc.)*; and after the at least one mobile device is moved in the building: cause to be output, via the at least one mobile device, the second visual information* (e.g., the images of the second location-specific cartwheel "deals", etc.) *based on the second location-relevant information;*

 Note: See, for example, the evidence (above, where applicable) and belowp:

  |

wherein the system is configured such that the first visual information is automatically caused to be output without requiring communication of the at least one message with the first broadcast short-range communications unit after the receipt of the indication of the receipt of the one or more first broadcast messages, and the second visual information is automatically caused to be output without requiring communication of the at least one message with the second broadcast short-range communications unit after the receipt of the indication of the receipt of the one or more second broadcast messages.	Target owns or controls a *system that is configured such that the first visual information* (e.g., the images of the first location-specific cartwheel "deals", etc.) *is automatically caused to be output without requiring communication of the at least one message* (e.g., the IP packet(s), etc.) *with the first broadcast short-range communications unit* (e.g., the first beacon broadcast unit, etc.) *after the receipt of the indication of the receipt of the one or more first broadcast messages* (e.g., the first advertisement packets, etc.)*, and the second visual information* (e.g., the images of the second location-specific cartwheel "deals", etc.) *is automatically caused to be output without requiring communication of the at least one message with the second broadcast short-range communications unit* (e.g., the second beacon broadcast unit, etc.) *after the receipt of the indication of the receipt of the one or more second broadcast messages* (e.g., the second advertisement packets, etc.). **Note**: By virtue of the first/second visual information being requested via the at least one message that is sent to the <u>cellular base station</u> or <u>WiFi access point</u> (and **NOT** via the beacon transmitters), this element is met.

Caveat: The notes and/or cited excerpts utilized herein are set forth for illustrative purposes only and are not meant to be limiting in any manner. For example, the notes and/or cited excerpts, may or may not be supplemented or substituted with different excerpt(s) of the relevant reference(s), as appropriate. Further, to the extent any error(s) and/or omission(s) exist herein, all rights are reserved to correct the same.